



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/041,146 | 01/04/2002 | Charles W. Berthoud | C.BERTHOUD 22 | 2400 |

47396 7590 03/31/2006

HITT GAINES, PC
AGERE SYSTEMS INC.
PO BOX 832570
RICHARDSON, TX 75083

EXAMINER

CHEN, TSE W

ART UNIT PAPER NUMBER

2116

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/041,146

Applicant(s)

BERTHOUD, CHARLES W.

Examiner

Tse Chen

Art Unit

2116

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. It is hereby acknowledged that the following papers have been received and placed of record in the file: Amendment dated March 6, 2006.
2. Claims 1-21 are presented for examination.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “intrinsic performance indication system” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1-4, 8, 10-11 are rejected under 35 U.S.C. 102(a) as being anticipated by “CATC USB Chief Bus and Protocol Analyzer User’s Manual”, hereinafter Chief.

6. In re claim 1, Chief discloses a performance [e.g., speed] indication system for use with a USB signal capable of having a data transfer rate corresponding to at least a high-speed operation [full is high speed relative to low] [pp.4-5; pg.13; pg.17], comprising:

- A rate discrimination subsystem [analyzer with cables] configured to provide a determination of a data transfer rate [timing measurements] of said USB signal corresponding to a full speed operation [low] and a high speed operation [full] [pp.4-5; pg.13].
- A condition indication subsystem [pc] coupled to said rate discrimination subsystem and configured to indicate said data transfer rate to a user [pg.4-5].

7. As to claim 2, Chief discloses, wherein at least a portion [cables] of said performance indication system is contained in a USB cable assembly [pg.3; short and long cables part of performance indication system necessary for analysis].

8. As to claim 3, Chief discloses, wherein at least a portion of said performance indication system is contained in a peripheral device [pg.3, 17; interface to short cable in peripheral required in order to operate].

Art Unit: 2116

9. As to claim 4, Chief discloses, wherein said condition indication subsystem employs a visual display [pc screen] to indicate said data transfer rate to said user [pp.4-5; pg.17].

10. In re claim 8, Chief taught each and every limitation of the claim as discussed above in reference to claim 1. Chief taught the performance indication system; therefore, Chief taught the method of operating the performance indication system.

11. As to claim 10, Chief discloses, wherein said determining and said indicating are performed in circuitry contained in a peripheral device [pc] [pg.17; speed and other performance characteristics are determined from information sent from analyzer and indicated at the peripheral pc].

12. As to claim 11, Chief discloses, wherein at least a portion of said indicating said data transfer rate employs a visual display [pc screen] [pg.17].

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 5, 12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chief as applied to claim 1 above, and further in view of Davis et al., US Patent 5365577, hereinafter Davis.

15. Chief discloses each and every limitation of the claim as discussed above in reference to claim 1. Chief did not disclose explicitly that the condition indication subsystem employs an audio device.

Art Unit: 2116

16. Davis discloses a system wherein said condition indication subsystem [modem controller 346] employs an audible device [tone generator] to indicate a data transfer rate [bps] to a user [1412.5 and 2312.5 Hz distinguishing the different data rates are well within the human audible range of about 20-20000 Hz] [col.22, ll.1-28].

17. It would have been obvious to one of ordinary skill in the art, having the teachings of Chief and Davis before him at the time the invention was made, to modify the performance indication system taught by Chief to include the audible device of Davis, in order to obtain the performance indication system wherein at least a portion of said condition indication subsystem employs an audio device. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to output the operating status [Davis: col. 22, ll.1-28].

18. Claims 6, 13 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chief as applied to claim 1 above, and further in view of Kitagawa, US Publication 20030026183.

19. Chief disclose each and every limitation of the claim as discussed above in reference to claim 1. Chief did not disclose explicitly that the determination of the data transfer rate is based on an outcome of a chirping process.

20. Kitagawa discloses a performance indication system wherein the determination of a data transfer rate [speed] is based on an outcome of a chirping process [0032-0033].

21. It would have been obvious to one of ordinary skill in the art, having the teachings of Chief and Kitagawa before him at the time the invention was made, to modify the performance indication system taught by Chief to include the teachings of Kitagawa, in order to obtain the performance indication system wherein said determination of said data transfer rate is based on an outcome of a chirping process. One of ordinary skill in the art would have been motivated to

Art Unit: 2116

make such a combination as it provides a way to determine a data transfer rate for correct operation [Kitagawa: 0006-0007].

22. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chief as applied to claim 1 above, and further in view of Kolbet et al., US Patent 6308215, hereinafter Kolbet.

23. Chief discloses each and every limitation of the claim as discussed above in reference to claim 1. Chief did not disclose explicitly that the rate discrimination subsystem employs a control signal associated with a USB signal for said determination of said data transfer rate [pg.13; D+, D- signal were not specifically described in detail].

24. Kolbet discloses a rate discrimination subsystem [part of logic block b1] employs a control signal [D+, D-] associated with a USB signal for said determination of said data transfer rate [col.4, ll.22-55].

25. It would have been obvious to one of ordinary skill in the art, having the teachings of Chief and Kolbet before him at the time the invention was made, to modify the performance indication system taught by Chief to include the teachings of Kolbet, in order to obtain the performance indication system wherein the rate discrimination subsystem employs a control signal associated with a USB signal for said determination of said data transfer rate. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to determine a data transfer rate for correct operation [Kolbet: col.4, ll.22-55].

26. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chief and Kolbet as applied to claim 7 above, and further in view of Donahue, US Patent 4837488.

27. Chief and Kolbet disclose each and every limitation of the claim as discussed above in reference to claim 7 [Chief discloses indicating the data transfer rate to a user while Kolbet specifically identifies the signals D+ and D- used for indicating the data transfer rate]. Chief and Kolbet did not disclose the determining and the indicating are performed in circuitry contained in the USB cable assembly.

28. Donahue discloses a method wherein a determining [16] and a indicating [17] are performed in circuitry contained in a cable assembly [14 assembled via connecting 7 and 13] [fig.3; col.6, ll.13-31, ll.45-61; signals such as D+ and D- can be connected to simple LEDs to indicate speed].

29. It would have been obvious to one of ordinary skill in the art, having the teachings of Donahue, Chief and Kolbet before him at the time the invention was made, to modify the performance indication system taught by Chief and Kolbet to include the teachings of Donahue, in order to obtain the performance indication system wherein said determining and said indicating are performed in circuitry contained in a USB cable assembly [signals such as D+ and D- can be connected to simple LEDs to indicate speed]. One of ordinary skill in the art would have been motivated to make such a combination as it provides a simple way to utilize LED circuits for those with moderate skill in the art for the diagnostic of cable characteristics [e.g., speed performance by monitoring signals such as D+ and D-] [Donahue: col.2, ll.3-15; col.6, ll.13-31].

30. Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chief as applied to claim 1 above, and further in view of Howard et al., US Patent 7007119, hereinafter Howard.

Art Unit: 2116

31. In re claim 15, Chief discloses a computer system [pg.17], comprising a central processing unit associated with a keyboard, a pointing device and a monitor [all part of pc]; and an intrinsic [computer system boundary encompasses all elements on pg. 17] performance indication system as discussed above in reference to claim 1. Chief did not disclose a USB 2.0 signal.

32. Howard discloses a computer system comprising a data transfer rate of a USB 2.0 signal corresponding to a full-speed operation [12 Mbps] and a high-speed operation [480 Mbps] [col.2, ll.36-60].

33. It would have been obvious to one of ordinary skill in the art, having the teachings of Chief and Howard before him at the time the invention was made, to modify the performance indication system taught by Chief to determine the rate of a USB 2.0 signal. One of ordinary skill in the art would have been motivated to make such a combination as USB 2.0 provides a higher communication speed that would encourage more adoption [Howard: col.2, ll.36-60].

34. As to claim 16, Chief discloses, wherein at least a portion [cables] of said intrinsic performance indication system is contained in a USB cable assembly [pg.3; short and long cables part of performance indication system necessary for analysis].

35. As to claim 17, Chief discloses, wherein at least a portion of said intrinsic performance indication system is contained in a peripheral device [pg.3, 17; interface to short cable in peripheral required in order to operate].

36. As to claim 18, Chief discloses, wherein said condition indication subsystem employs a visual display [pc screen] to indicate said data transfer rate to said user [pp.4-5; pg.17].

Art Unit: 2116

37. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chief and Howard as applied to claim 15 above, and further in view of Kolbet.

38. Chief and Howard disclose each and every limitation of the claim as discussed above in reference to claim 15. Chief and Howard did not disclose explicitly that the rate discrimination subsystem employs a control signal associated with a USB 2.0 signal for said determination of said data transfer rate [pg.13; D+, D- signal were not specifically described in detail].

39. Kolbet discloses a rate discrimination subsystem [part of logic block b1] employs a control signal [D+, D-] associated with a USB signal for said determination of said data transfer rate [col.4, ll.22-55].

40. It would have been obvious to one of ordinary skill in the art, having the teachings of Chief and Kolbet before him at the time the invention was made, to modify the performance indication system taught by Chief and Howard to include the teachings of Kolbet, in order to obtain the performance indication system wherein the rate discrimination subsystem employs a control signal associated with a USB 2.0 signal for said determination of said data transfer rate. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to determine a data transfer rate for correct operation [Kolbet: col.4, ll.22-55].

Response to Arguments

41. All rejections of claim limitations as filed prior to Amendment dated March 6, 2006 not argued in entirety or substantively in response filed as said Amendment have been conceded by Applicant and the rejections are maintained from henceforth. Any arguments hereinafter related to said rejections of claim limitations will be considered untimely.

Art Unit: 2116

42. Applicant's arguments with respect to the limitations of claims 1, 8 and 15 have been considered but are moot in view of the new ground(s) of rejection.

43. Applicant's arguments with respect to the following have been fully considered but they are not persuasive.

44. Applicant alleges that Davis does not "indicate a transfer rate to a user". Examiner disagrees and submits that Davis discloses a system wherein said condition indication subsystem [modem controller 346] employs an audible device [tone generator] to indicate a data transfer rate [bps] to a user [1412.5 and 2312.5 Hz distinguishing the different data rates are well within the human audible range of about 20-20000 Hz] [col.22, ll.1-28].

45. All other claims were not argued separately in entirety or substantively.

Conclusion

46. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2116

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tse Chen whose telephone number is (571) 272-3672. The examiner can normally be reached on Monday - Friday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tse Chen
March 20, 2006


LYNNE H. BROWNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100